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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/047,528

01/14/2002

Atsushi Kitagawa

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07/14/2004

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WASHINGTON, DC 20036

EXAMINER

CHUNG, DAVID Y

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AN

<b>Office Action Summary</b>	<b>Application N .</b> 10/047,528	<b>Applicant(s)</b> KITAGAWA ET AL.	
	<b>Examin r</b> David Y. Chung	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears n the c ver sheet with the c rrespondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9, 19 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 19 and 21-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 2, 5-9, 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa et al. (JP 2000-321426) in further view of Yokokura et al. (U.S. 5,220,447).**

As to claim 1, Kitagawa et al. discloses a wide visual field angle polarizing plate. Figure 1 shows a polarizing layer 11 laminated on an optical compensation film 13 and a brightness enhancement film 3 laminated on the polarizing layer. Figure 2 shows a polarizing layer 11 laminated on an optical compensation film 13 and a retardation film 7 laminated on the polarizing layer.

Kitagawa et al. does not disclose that the polarizing layer 11 is directly laminated on optical compensation film 13. It was well known that the optical properties of adhesives often caused undesirable optical effects. The background discussion of Yokokura et al. is evidence of this. Yokokura et al. shows that it was well known that adhesives used to attach films to a liquid crystal display device caused a decrease in contrast. Therefore, it would have

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been obvious to one of ordinary skill in the art at the time of invention to directly laminate the polarizing layer on the optical compensation film without using an adhesive in order to maintain good contrast.

Forming the polarizing layer by coating a polarizing layer forming material on the compensating plate does not patentably distinguish the claims from the prior art. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. See MPEP § 2113.

As to claim 2, Kitagawa et al. discloses an optical compensation layer comprising optically anisotropic layer 13 and support film 5. It was conventional for an optically anisotropic layer in a compensator to be formed of a material having a liquid-crystalline property. It would have been obvious to one of ordinary skill in the art at the time of invention to form the optically anisotropic layer of a material having a liquid-crystalline property because it was conventional, and conventional elements had the benefits of well understood behavior and well established supply chains and manufacturing methodologies.

As to claim 5, Kitagawa et al. discloses that the thickness of the polarizing layer is typically 5 to 80  $\mu\text{m}$ . See column 2, lines 36-38. Because the claimed range of 0.1 to 15  $\mu\text{m}$  overlaps with the range disclosed by Kitagawa et al., a prima facie case of obvious exists. See MPEP § 2144.05.

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As to claim 6, Kitagawa et al. discloses a protective layer 12 disposed on the surface of polarizing layer 11.

As to claim 7, Kitagawa et al. does not disclose laminating a polarizing layer through coating-application of a polarizing layer forming material. However, this was a conventional way of forming a polarizing layer in a laminate structure. It would have been obvious to one of ordinary skill in the art at the time of invention to laminate a polarizing layer through coating-application of a polarizing layer forming material because it was convention, and conventional methods had the benefits of well understood behavior and well established supply chains and manufacturing methodologies.

As to claim 8, adhesion layers for glass-substrate surfaces were well known and obvious for their ability to securely bond any type of film to a substrate. It would have been obvious to one of ordinary skill in the art at the time of invention to include an adhesion layer for a glass-substrate surface of a liquid crystal display because of the need to securely bond the polarizing film to a substrate.

As to claim 9, the polarizing plate disclosed by Kitagawa et al. was commonly used in liquid crystal displays because of its ability to improve viewing angle. Therefore, it would have been obvious to one of ordinary skill in the art at

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the time of invention to use the polarizing plate of Kitagawa et al. in a liquid crystal display in order to improve view angle.

As to claim 24, figure 2 of Kitagawa et al. shows a retardation film 7 laminated to the polarizing layer.

As to claim 25, figure 1 of Kitagawa et al. shows a brightness enhancement film 3 laminated to the polarizing layer.

**2. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa et al. (JP 2000-321426) in further view of Yokokura et al. (U.S. 5,220,447) and Sahouani et al. (U.S. 6,245,399).**

Kitagawa et al. does not disclose a polarizing layer prepared by a lyotropic solution containing a dichroic dye or a liquid-crystal polymer solution containing a dichroic dye. Sahouani et al. discloses a guest-host polarizer that is formed of a guest pleochroic dye disposed within a host lyotropic liquid crystal matrix. See abstract. Sahouani et al. teaches that the disclosed guest-host polarizer exhibits surprisingly improved heat resistance, especially when applied to a glass substrate and that heat resistance can be important in liquid crystal displays requiring high levels of illumination, since some of the light used for illumination will inevitably be absorbed by the components of the display. See column 3, lines 50-58. Therefore, it would have been obvious to one of ordinary skill in the

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art at the time of invention to use the guest-host polarizing layer of Sahouani et al. in the polarizing plate laminate assembly of Kitagawa et al. because of the improved heat resistance.

**3. Claims 19 and 21-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Kitagawa et al. (JP 2000-321426) in further view of Yokokura et al. (U.S. 5,220,447) and Bobrov et al. (SID 00 Digest).**

As to claims 19 and 21, Kitagawa et al. does not disclose the thickness of the polarizing layer being in the range of 0.2 to 3  $\mu\text{m}$ . Bobrov et al. discloses a lyotropic thin film polarizer. Bobrov et al. discloses the thickness of the thin film polarizer to be about 700 nm (0.7  $\mu\text{m}$ ). Bobrov et al. teaches that the thickness reduction that was achieved in the demonstrated TN cell improves optical performance of the display without changing in anyway the internal structure of the cell. See page 1103. It would have been obvious to one of ordinary skill in the art at the time of invention to replace the polarizing layer of Kitagawa et al. with that of Bobrov because of the improved optical performance.

As to claim 22, figure 2 of Kitagawa et al. shows a retardation film 7 laminated to the polarizing layer.

As to claim 23, figure 1 of Kitagawa et al. shows a brightness enhancement film 3 laminated to the polarizing layer.

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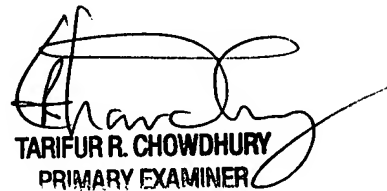
***Response to Arguments***

Applicant's arguments filed April 30, 2004 have been fully considered but they are not persuasive. As discussed above, a process limitation does not patentably distinguish a product claim over a prior art product unless it implies a materially different product. In this case, the final structure of the prior art (Kitagawa et al. in view of Yokokura et al.) is the same as that of the claimed invention regardless of whether the polarizing film is laminated on the compensation film or visa versa. Both process steps result in one film being directly adjacent to the other film. Furthermore, coating a polarizing layer forming material does not seem to result in a materially different or structurally different final product than that disclosed by the prior art (Kitagawa et al. in view of Yokokura et al.).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (571) 272-2288. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

David Chung  
GAU 2871  
07/11/04



TARIFUR R. CHOWDHURY  
PRIMARY EXAMINER